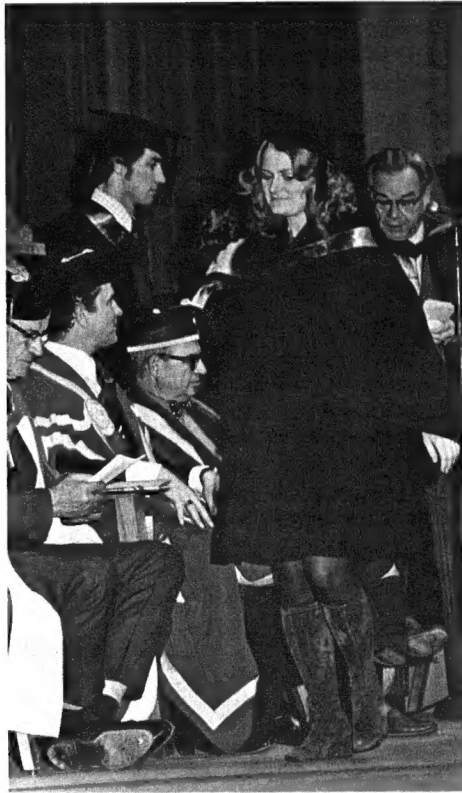


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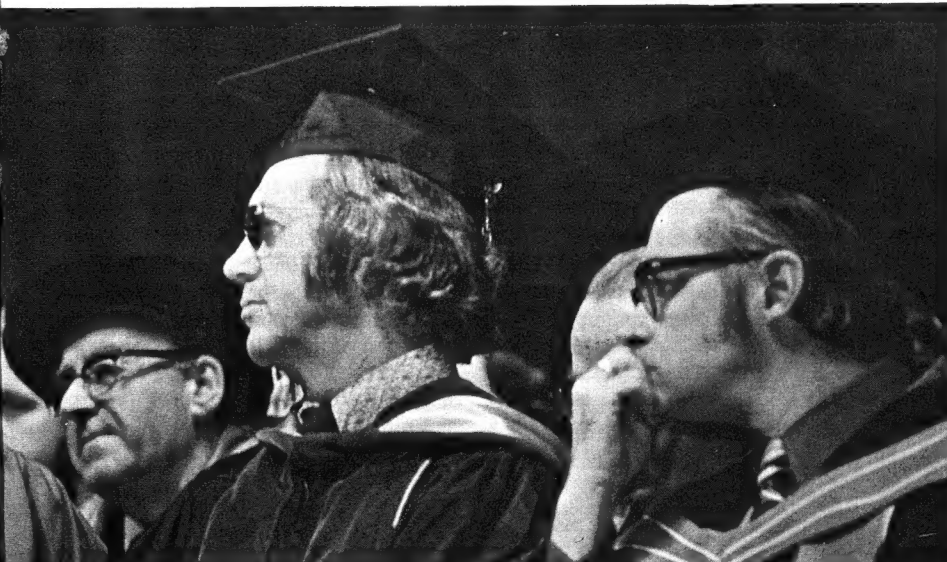
THE UNIVERSITY OF ALBERTA STAFF BULLETIN

EDMONTON 7, ALBERTA

NOVEMBER 25, 1971



People say that Convocation is traditional and staid, and will soon be moribund, but Saturday's affair looked pretty mod to us. Philosophers' begging hoods worn with bell-bottoms. Bluestockings sporting high suede boots. Members of the platform party defying custom by looking groovy. Even the recipients of honorary degrees are contributors to the pop society . . . MARSHALL MCLUHAN, the electric philosopher, and C. S. MILLER, who developed an instant office copying machine.



FINANCING EDUCATION: PRODUCTIVITY VERSUS QUALITY

The controversial issue of the rising cost of education was discussed at a seminar that was part of a meeting of the University Senate, Friday, November 19.

The three panel members were BOB CHAPMAN, chairman of the education committee of the Edmonton Chamber of Commerce, DON MCKENZIE, President of the Students' Union, and University President MAX WYMAN.

Mr. Chapman expressed the tremendous concern of Canadian businessmen and industrialists over "the economic future of Canada as related to education." He cited several newspaper reports of bankruptcy in various large American school systems as proof of inefficiency in handling educational finance.

Turning to Canada Mr. Chapman quoted from a Chamber of Commerce report on education comparative statistics of numbers of students and dollars spent educating them, and pointed to a marked "decrease in cost productivity," especially in universities, between 1956 and 1966.

He said the business community was "up in arms" and for that reason the Alberta Chamber of Commerce had set up a full-time staff for a division to investigate education in this province. "We want the best education we can get for our children," he said, "but we have to be careful about the cost."

He pledged the "special acumen of businessmen" to help educationists study and control their financial problems.

Mr. McKenzie spoke as a student primarily concerned with the allocation of university finances. He felt that in a consideration of educational costs there should be a separation of the teaching function, the research function, and the community service function of the University. "The Chamber of Commerce figure that students pay for only 15 per cent of their education is grossly misleading," he said, "considering that only 30 to 40 per cent of a professor's time is spent teaching." He felt that many potential students were deterred from university by the cost and the thought of incurring what to many of them represented an enormous debt.

Mr. McKenzie suggested that the distinction between operating and capital budgets be

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abolished "so that buildings don't take precedence over students."

Dr. Wyman said that the statistics presented in the Chamber of Commerce report quoted by Mr. Chapman were misleading because they did not consider the rapid inflation during the sixties or the vast growth in excellence achieved in this time.

Its measure of "cost productivity" was based on graduates per staff member, he said. "No proper measure of productivity can ignore the Salk anti-polio vaccine type of discovery made in universities, the reduced health care costs from eliminating certain crippling diseases, the development of computers which began in universities."

Dr. Wyman noted the increase in Canada's gross national product during this period and the marked increase in personal savings. "When we consider costs, we must consider our ability to pay."

He suggested that "the success of the efficiency of business is a myth. Business has not been successful in coping with inflation and unemployment, perhaps less successful than education has been with its financial problems."

"We're all in this together," he said, "and we have to work together or we won't get out of it at all."

He added a warning to businessmen that "if you don't give education your support, it will be reflected in your homes."

FIL FRASER, a new member of the Senate, commented in the discussion that followed that "if businessmen are out to lunch in assessing university productivity it is because the educators haven't invited them to the table." He suggested that serving as a channel of communication between the business

community and the University was an especially good role for the Senate.

REPORT ON STUDENT ENROLMENT

Reports on enrolment and enrolment trends in the University, high schools, and public schools generally were presented to the Senate.

Registrar A. D. CAIRNS gave the fulltime University enrolment for 1971-72 as 18,617, an increase of only .6 per cent above last year. The per cent increase from 1969-70 to 1970-71 was 5.6 per cent, from 1968-69 to 1969-70, 14 per cent.

Mr. Cairns speculated that the handwriting may have been on the wall two years ago when, although the full-time enrolment was up 14 per cent, the increase in number of new students was only 2.5 per cent.

"In terms of rates of increase," said Mr. Cairns, "1968-69 was our peak year. That year full-time enrolment was up 17.5 per cent and the enrolment of new full-time students by 28.3 per cent. The new students who came in as freshmen that year should, for the most part, be graduating in the spring of 1972. If this assumption is correct it would not surprise me if our enrolment in 1972-73 is down by three or four hundred from our enrolment this year, unless a sudden upsurge in the economy or a change in the aspirations of young people of school-leaving age produces a substantial increase in admissions to the University."

Enrolment figures for the public and senior high schools and numbers of matriculating students have also experienced a levelling off, as well as the birth rate. All speakers predicted a plateau in enrolments at various levels for the next four or five years, then a slight increase followed by another plateau.

Dr. Wyman commented that while the rate of increase was down to only 2 per cent for the whole of Canada, it was still an increase. "Our space needs are still great because we haven't caught up on the growth of the sixties."

"We knew the 12 per cent figure was not exponential. We used it as such but we knew a break would have to come. We need not to panic but to take stock and make new projections," he said.

HONORARY DEGREES PROCEDURES

Earlier in the Friday meeting the Senate considered the criteria for selecting recipients of honorary degrees.

The Senate approved that candidates for degrees be recommended sparingly and that normally only one honorary degree be conferred at any convocation ceremony.

Other criteria for choosing honorary graduands were approved as follows: degrees are intended to honor individuals, not the institutions to which they are connected;

that persons not necessarily in prominent positions but who have given distinguished public service be kept in mind; all fields of endeavor should be kept in mind; current members of the Board of Governors, University Senate, and members of the academic staff should not normally be considered.

A former stipulation that the University should honor mainly people whose work has touched Alberta or has been of importance to the province was deleted.

A proposal to advertise widely for public nominations for honorary degrees was narrowly defeated on the grounds of possible public embarrassment to an unsuccessful nominee and the fact that it is still the University that confers the degree.

NEW MEMBERS

The following new members were welcomed to the Senate meeting by Chancellor L. A. DESROCHERS: (*appointed*) D. E. SMITH, Dean of Arts, representing the Deans' Council; S. B. WOODS, Professor of Physics, representing General Faculties Council; E. C. STACEY, representing the Alumni Association; DON MC KENZIE, IAN MC DONELL, JANICE PELLETIER, BRIAN PLESUK, all representing the Students' Union; and M. A. ADAM, representing the Graduate Students' Association: (*elected*) R. M. ANTHONY, C. ROY COMPSTON, FIL FRASER, MRS. ALLISON LAMB, and MRS. ROSS MUNRO, all of Edmonton; MRS. BERTHA CLARK of Fort McMurray; J. L. LAGASSE of St. Paul; P. J. MURPHY of Hinton; and MRS. ETHEL TAYLOR of Red Deer.

CONDITIONAL SALARY SETTLEMENT REACHED

If the 1972-73 government grant to The University of Alberta is within two per cent of what the University expects it to be, academic staff members will receive increased salaries and fringe benefits next year.

Announcement of the settlement was made November 8 by JOHN E. BRADLEY, Chairman of the Board of Governors. The government grant is expected to be announced in January.

Under the agreement, academic staff members will be granted an across-the-board increase of \$387, and a salary adjustment of 2.25 per cent, effective July 1, 1972. This amounts to an average increase of 4.5 per cent.

It also was agreed that the Board will remit tuition for full-time academic staff taking courses at the University and will provide additional funds for assisted leave.

The present arrangement of the University guaranteeing second mortgage loans to junior staff members has been modified. Eligibility has been extended to members with up to seven years of service during the academic

FOLIO

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William Samis, Editor

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year 1972-73, up to six years of service in 1973-74, and up to five years in 1974-75 and thereafter.

EDOUARD SONET 1880 - 1971

EDOUARD SONET, Professor Emeritus of Modern Languages, died November 14 in Victoria, at the age of 91.



Dr. Sonet, who was born near Grenoble, France, joined the University as an instructor in French in 1911. He held a Master of Arts degree from this University and a Doctorat d'Université from the University of Rennes.

During the First World War he served with the French army and later taught Canadian servicemen in Khaki University, under Henry Marshall Tory. After a short period in France, Dr. Sonet returned to The University of Alberta, where he taught in the Department of Modern Languages until his retirement in 1947. He was head of the department from 1936 to 1947.

Dr. Sonet is remembered as a very popular, even spectacular teacher. He was granted an honorary LLD by the University in 1960.

JOURNALISM AWARD APPROVED

The Dr. F. P. Galbraith Memorial Award in Journalism was approved November 8 by the Board of Governors at the University.

The award was established on the recommendation of the University Senate, in memory of the late F. P. Galbraith, former Chancellor of the University and Publisher of the *Red Deer Advocate*. Dr. Galbraith was a member of the Senate from 1948 to 1954 and Chairman from 1964, when he was elected Chancellor, to his death in May, 1970.

To be eligible for the award, an applicant must have been a working journalist in Alberta for at least three years, and must currently be working in the news reporting or editorial area of a daily or weekly newspaper, a radio or television station, or a national news service or *bona fide* news service of any kind.

The award, established to enable the winner to attend the University as a special student for one winter session, will be valued at \$4,000 plus tuition fees for a single person

and \$6,500 plus tuition fees for a married person.

Selection will be made by a committee including R. B. WISHART, Administrator of Student Awards; a member of the academic staff; and a non-University member of the University Senate. Details of application procedures will be announced at a later date.

PHYSICAL EDUCATION: FOR AESTHETES OR ATHLETES?

Three years ago at this time, all full-time, first-year students at the University were required to take a basic course in physical education.

Some of them complained, but most of them didn't.

Why, then, was the program discontinued? And what were the results?

"The discontinuation of a compulsory physical education course was almost a product of today's culture," says M. L. VAN VLIET, Dean of the Faculty of Physical Education. "Today, even the staff members are loathe to suggest that anything should be required of anybody."

"They say students are adults, and as adults they shouldn't be required to do anything beyond the academic stream of life."

Dr. Van Vliet says he strongly opposes that point of view, but he makes it clear his opposition doesn't stem from the proverbial Madison Avenue product-plugging. It arises, instead, from a deep concern that many students will never discover the recreational aspect of physical education.

"I deeply regret not having the opportunity to expose students to what I think are some of the nicer things in life," he says. "There are many people from high schools in the rural areas, for example, who don't know how to swim because there were never any facilities available."

That same lack of facilities means there are a large number of students who have never paddled a canoe, or swung a golf club, or sent a tennis ball skimming over the net.

Dr. Van Vliet says another reason he was in favor of continuing the compulsory course was the general concern over the lack of individualization and personal involvement on campus.

"Because of the informal atmosphere of our programs, many first-year students made contacts with people who later became their closest friends. This seldom happens in the classroom."

Despite his personal feelings about the matter, Dr. Van Vliet says he did not oppose the change too strongly because of a shortage of personnel.

"The combination of a slightly depressed

budget and an increased enrolment would have made it difficult for us to staff the compulsory courses," he says. "Even though the enrolment has leveled off now, we couldn't go back to the former system without a major increase in staff."

He points out, however, that the change does have its advantages.

"We still have students from other faculties taking physical education courses for academic credit leading toward their degrees, and it is nice to have them use our facilities because they are enthusiastic about our courses. If an Arts student elects to take swimming, you can be sure he really wants to learn to swim and will work hard at it."

"Staff members also find great satisfaction in teaching students who have elected—rather than been required—to take a course."

If physical education is to be made compulsory again, says Dr. Van Vliet, it will only be feasible if facilities—and staff—are expanded. He also would like to see the University initiate a third term, running from May 1 to August 1.

"Right now, we have total use of facilities. We need additional ice surfaces and with a third term would like to consider offering such courses as sailing and canoeing."

"There are too many people in Alberta who have been denied these things."

The
Stone
Owl



SNOWFENCE IS GOOD FOR YOU

With notably few exceptions, the formal walks on campus follow a neat grid. They go in a straight line and meet other walks at right angles. Unfortunately most humans here have not yet been programmed to turn corners at right angles and march neatly to the front steps of where they are going.

There are two easy answers, both of which are fully employed at The University of Alberta.

One is to pour cement along every little footpath to enshrine it forever. An example of this kind of foresight is the south quad. This is an intriguing scramble of straight and crooked lines and, naturally, new footpaths worn by obtuse individuals who loathe concrete.

The other answer is snowfence.

Barn-red, regulation height snowfence. Everywhere.

Obviously this is subjective. Somewhere there must be amateurs of snowfence, who

derive joy from the textures of little red knotholes and twisty wire.

But it is an unsettling sight, especially if the day is one of those sparkling clear winter days and if one has spent several hours reading through a rough draft copy of the proposed long-range landscape development plan (which, after it has been properly presented and approved, will be published in a future issue of FOLIO). The plan itself is exciting. It opens up almost limitless possibilities for the campus outdoors. It talks sensibly of how paths should be planned. And it suggests planting of trees and shrubbery to foil both drifting snow and wayward pedestrians more effectively than snowfence. More beautifully, too.

The newest job for snowfence is outside the main door of the Central Academic Building. There is no apparent reason for it, except that the recently poured tarmac entrance approaches the building at right angles. If you approach in a straight line from the quad, perhaps you ruin something in the original design and probably you give tangible evidence of your moral lassitude. Likely you muddy the floor of the Central Academic Building too, but you do that anyway when you detour around the inevitable service truck parked on the sidewalk.

This is quite a typical use of snowfence around the campus.

And snowfence is good for you. It helps keep you on the straight and narrow and perpendicular regardless of your own feelings on the matter.

J.F.R.

BOOKS

■ A book by W. H. SWIFT, formerly both Chairman of the Universities Commission, and a Deputy Minister of Education for Alberta, has been published by the Macmillan Company of Canada. It is entitled *Educational Administration in Canada: A Memorial to A. W. Reeves*.

■ *Income Averaging and Canadian Tax Reform* by V. SALYZYN, Professor of Economics, has been published by CCH Canadian Limited.

■ A bibliography by MRS. MEG RICHESON, Sessional Lecturer with the School of Library Science, has been published by the Council of Planning Librarians. Its title is *Canadian Rural Sociology Bibliography*. Council of Planning Librarians, November 1971. (Exchange Bibliography, No. 238.)

VISITORS

■ C. E. BURGESS of the University of Utah presented a colloquium to the Department of Mathematics.

■ A. G. MITCHELL, Professor of Pharmaceutics at the University of British Columbia, presented

a seminar to the Faculty of Pharmacy and Pharmaceutical Sciences.

■ R. A. HEWETT of the Department of Industry, Trade and Commerce, Ottawa; E. N. APLIN of the Eastern Forest Products Laboratory, Ottawa; G. R. SMITH of the Council of Forest Industries of British Columbia, Vancouver, and B. MADSEN of the University of British Columbia were speakers at a one-day seminar on Timber Design sponsored on Campus last week jointly by the Department of Civil Engineering and the Department of Extension. The seminar was related to the new edition of the Canadian Standards Association Code of Recommended Practice for Engineering Design in Timber, which reflects new approaches to design based on extensive research.

■ B. LOVIUS, specialist orthodontist at the University of Liverpool Dental School, addressed the graduate students in Orthodontics of the Faculty of Dentistry and the Western Canada Orthodontic Society.

PEOPLE

■ EDWARD MOZEJKO, Associate Professor of Slavic Languages and Comparative Literature, who is currently on leave of absence on a Humboldt Foundation Fellowship at the University of Munich, Germany, read a paper at the Conference on Twentieth Century Bulgarian Literature in Washington, D.C.

■ SALEEM QURESHI, Associate Professor of Political Science, was invited to read a paper on national integration and the problem of Bangla Desh at a conference on "Asia in the Nineteen Seventies: Problems and Prospects" sponsored jointly by the Canadian Institute of International Affairs and the School of International Studies of Carleton University, Ottawa. Also, D. PRITHIPAUL, Associate Professor in Religious Studies, read a paper on Hinduism and modernity at this conference.

■ J. J. THOMSEN, Director of Bio-Sciences Animal Services and D. C. SECORD, Director of the Health Sciences Animal Centre, were invited speakers at the Tenth Annual Meeting of the Canadian Association for Laboratory Animal Science recently held in Toronto. Both Mr. Thomsen and Dr. Secord were elected to the Board of Directors of this association. In addition, FLINT VOSS, Senior Animal Technician for Bio-Sciences Animal Services, was the recipient of the Ralston Purina 1971 Animal Technician of the Year Award for his outstanding skill and knowledge as a laboratory animal technician.

■ D. W. MANUEL, Assistant Professor of Vocational and Industrial Education and President of the Industrial Arts and Vocational

Education Council, recently co-chaired a seminar held for the purpose of developing performance objectives for Junior High School Industrial Arts. The seminar was sponsored jointly by the IAVEC and the Industrial Arts Research Consortium. T. E. HARRISON, Project Director of the IARC was the other co-chairman.

■ J. JAMESON BOND, Director of the Boreal Institute for Northern Studies, recently presented a paper to the Fourth Canadian Northern Science Conference, in Univik, Northwest Territories. This conference gives an opportunity for various northern research institutes across Canada to review past and present research activities and to examine northern research requirements which may be handled on a co-ordinated basis.

■ ERNEST REINHOLD, Professor of Germanic Languages, has been awarded a grant for research material of DM 1,000 by the Alexander von Humboldt Foundation of Bonn-Bad Godesberg. The material, which is to become property of the University, will be selected to complete the Library's noteworthy collection of German exile-literature. Dr. Reinhold is recipient of the grant as a Senior Fellow of the Foundation in 1964-65.

■ MICHAEL J. BALL, Director of the University Health Service, was a speaker at a recent Conference on Family Planning, in Whitehorse, Northwest Territories. The conference was sponsored by the federal government's Northern Health Services.

NOTICES

GENERAL FACULTIES COUNCIL

A general meeting of General Faculties Council will be held on Monday, December 20 in the Council Chamber, University Hall at 2 p.m.

PUBLIC LECTURES ON GEOLOGY

In the fall of 1970 the Edmonton Geological Society initiated a series of general interest lectures directed at the public at large. The response to the lectures was encouraging and the series will continue this winter.

Talks have been scheduled dealing with "Alberta's Fossil Fuels" a subject of present and future economic importance to the province. The talks are intended to give a broad perspective, and the audience is not expected to have any previous special knowledge of the subject.

"What are the Athabasca Tar Sands?" is the title of the talk to be given on December 15 at 8 p.m. by M. A. CARRIGY, Geologist, Research Council of Alberta. It will be held at the Provincial Museum and Archives and admission is free.

FACULTY WOMEN'S CLUB

The Faculty Women's Club offers fellowship to female members of the faculty and to wives of members of the faculty. There are still some openings in their 18 interest groups. For further information call LOIS NEWSHAM at 434-5206.

NEW YEAR'S EVE PARTY

The Non-academic Staff Association will be holding a New Year's Eve Party 1971, from 9 p.m. to 2 a.m. at Lister Hall. TONY THOMPSON and his band will provide the music and there will be a hot and cold buffet. Tickets, at \$15 per couple, are available only from the main office of Lister Hall, Monday to Friday between 8 a.m. and midnight.

THIS WEEK AND NEXT

Listings must reach the Editor by 9 a.m. the Friday prior to publication. Written notification is preferred. Compiled by NORMA GUTTERIDGE, 432-4991.

25 NOVEMBER, THURSDAY

Open Seminar Series

4 p.m. "The development of comedy from the Greeks and the Romans through Moliere to the Moderns" by WALTER H. JOHNS. Sponsored by the Department of Romance Languages. Physics Building, V-Wing, Room V114.

26 NOVEMBER, FRIDAY

Library Science Colloquium

11 a.m. "The influence of design and printing on the quality of books" by WALTER JUNGKIND, Professor of Art and Design. Rutherford Library, 1st floor, old Law Reading Room.

Faculty Club

Downstairs. TGIF—Mexican Menu. Chilaquiles, Chalupas, Pork Enchiladas. \$3.25 per person.

Upstairs. Gourmet Special. Madrilene of Beef and Onion. Poitrine de Veau Farcie Pas, Abricots a la Royale. \$13.50 for two. Also regular menu. Dinner 6 to 9 p.m.

Student Cinema

6:30 and 9 p.m. *The Boys in the Band*. Off-Broadway cast. SUB Theatre. Admission 75 cents, students 50 cents.

Recital

8:30 p.m. Associate Professors of Music, LAWRENCE FISHER, violin, and HELMUT BRAUSS, piano. Works by Beethoven, Ravel, and Hans Pfitzner. Convocation Hall. Admission is free.

27 NOVEMBER, SATURDAY

Faculty Club

Casual dining in the Saskatchewan Room: Bird and Bottle Buffet. \$4 per person.

Upstairs. Gourmet Special. Madrilene of Beef and Onion. Poitrine de Veau Farcie Pas. Abricots a la Royale. \$13.50 for two. Also regular menu. Dinner 6 to 9 p.m. Dancing afterwards.

Edmonton Symphony Orchestra

8:30 p.m. *And 28 November at 3 p.m.* Guest artist, HENRYK SZERYNG, violinist. Symphony 25 in G mi. by Mozart; Suite "Bourgeois Gentilhomme" by Richard Strauss; Violin Concerto in D by Brahms. Jubilee Auditorium.

28 NOVEMBER, SUNDAY

Student Cinema Special

Also 29 and 30 November. 7 p.m. *The American Dreamer*, with DENNIS HOPPER. SUB Theatre. Admission \$1 for students, \$1.50 non-students.

National Film Theatre

7:30 p.m. *White Zombie*, USA, 1932. Directed by Victor Halperin, with Bela Lugosi and Madge Bellamy. English dialogue. Also *Paris Qui Dort*. Edmonton Art Gallery. Members only. Memberships available at the door; \$2 on evening of joining, 75 cents every film attended thereafter.

29 NOVEMBER, MONDAY

Pharmacy Lecture

4:30 p.m. "Computers, clinical pharmacy, and the corner drugstore" by ROBERT A. MILLER, Director of Pharmaceutical Services at the University of California at San Francisco. Medical Sciences Building, Room 2099.

Public Lecture

8 p.m. "Schopenhauer and Indian Thought" by R. K. DAS GUPTA, Distinguished Visiting Professor, Tagore Professor of Bengali. Sponsored by the Department of Comparative Literature. Henry Marshall Tory Building, Room TB-45.

Concert

8 p.m. *The Goliard Brass Quintet* in concert. An Edmonton group of professional musicians will present brass music from the 15th to the 20th centuries. Sponsored by the Edmonton Musicians' Association and the Music Performance Trust Funds. Convocation Hall. Admission free.

1 DECEMBER, WEDNESDAY

Color Film Series

7:30 to 9:30 p.m. SIR KENNETH CLARKE's BBC television film series *Civilisation*. Final episode, *Heroic Materialism*. Sponsored by the Department of Extension. Henry Marshall Tory Building, Lecture Wing, TLB-1. Admission free.

2 DECEMBER, THURSDAY

Guild for Medieval and Renaissance Studies

8:15 p.m. "Castles and perilous forests—the milieu of Arthurian romance" by M. A. WHITAKER, Assistant Professor of English,

Membership in the Guild costs \$2.50 (students \$1). Admission to single meetings, 50 cents. Henry Marshall Tory Building, faculty lounge, 14th floor.

3 DECEMBER, FRIDAY

Faculty Club

Downstairs. Regular TGIF, with dance music. *Upstairs.* Gourmet Special. Oysters Mignonnette, Curly Endive, Beef Tenderloin Shastick Flambé, Wild Rice, Bavarois au Rhum. \$13 for two. Also regular menu. Dinner 6 to 9 p.m.

Student Cinema

6:30 and 9 p.m. *Two Mules for Sister Sara* with SHIRLEY MC LAINE and CLINT EASTWOOD. Students' Union Theatre. Admission 75 cents, students 50 cents.

Basketball

8 p.m. Golden Bears vs. The University of Lethbridge Chinooks. Main Gymnasium.

Hockey

8 p.m. Golden Bears vs. the University of Saskatchewan Huskies. Varsity Arena.

Recital

8:30 p.m. CHERYLL MELOTT and CLAUDE KENNESON, violoncellists, and BRIAN HARRIS, harpsichordist. Convocation Hall. Admission free.

4 DECEMBER, SATURDAY

Volleyball

10 a.m. The University of Alberta Invitational. Main Gymnasium.

Saturday Forum

10 a.m. P. J. CAHILL, Chairman of the Department of Religious Studies, will continue discussion on the topic "Man and animal: some reflections on Biblical differentiations." Biological Sciences Centre, Room CW410-422.

Wrestling

2 p.m. Golden Bears vs. The University of Calgary. Main Gymnasium.

Hockey

2 p.m. Golden Bears vs. the University of Winnipeg Wesmen. Varsity Arena.

Swimming

2 p.m. Golden Bear Relays. Varsity Pool.

Faculty Club

Upstairs. Gourmet Special. Oysters Mignonnette, Curly Endive, Beef Tenderloin Shastick Flambé, Wild Rice, Bavarois au Rhum. \$13 for two. Also regular menu. Dinner 6 to 9 p.m. Dancing afterwards. There will be no casual dining in the Saskatchewan Room during the month of December.

Basketball

8 p.m. Golden Bears vs. The University of Lethbridge Chinooks. Main Gymnasium.

5 DECEMBER, SUNDAY

Concert

3 p.m. The University of Alberta Concert Band conducted by JOHN ILTIS, Associate Professor

of Music, will present its annual Christmas program. SUB Theatre. Adults \$1, children 50 cents. Tickets available from band members and at the door.

Student Cinema

6:30 and 9 p.m. *Start the Revolution Without Me*. SUB Theatre. Admission 75 cents. Students 50 cents.

Concert—"Two-Three-Four" Series

8:30 p.m. Second concert in the Department of Music's "Two-Three-Four" Series, with members of The University of Alberta String Quartet (LAWRENCE FISHER, violin, MICHAEL BOWIE, viola, and CLAUDE KENNESON, violoncello). The guest artist for this program will be DAYNA FISHER, oboist. Music by Hindemith, Beethoven and Mozart. Convocation Hall. Admission free.

7 DECEMBER, TUESDAY

Christmas Concert

8:15 p.m. Department of Music's Collegium Musicum, and St. Cecilia Chamber Orchestra, the Columbian Girls' Choir, and the choir of St. Joseph's Cathedral. J. S. Bach's "Sleepers Wake," will be performed, as well as other Christmas music. St. Joseph's Cathedral. Admission \$1 for adults, children free.

9 DECEMBER, THURSDAY

Open Seminar Series

4 p.m. "Henry IV—'Grand Pipeur' of France?": the passion for gambling at the Court of France during the first decade of the Seventeenth Century. A controversial look at the Pimantel Affair of 1608" by MICHEL BAREAU, Assistant Professor of Romance Languages. Sponsored by the Department of Romance Languages. Physics Building, V-wing, Room V114.

10 DECEMBER, FRIDAY

Faculty Club

Downstairs. Club Christmas Party. Turkey, goose, steamed pudding. Music by Ed Farnell and the In Crowd. \$3 per person.
Upstairs. Gourmet Special. Baked Pink Grapefruit, Roast Goose, Viennese Salad, Mincemeat Flan. \$13 for two. Also regular menu. Dance music. Dinner served 6 to 9 p.m.

Oratorio

8 p.m. "The Messiah" by George Frederick Handel will be presented by the Richard Eaton Singers, conducted by SANDRA MUNN. Concert master BRODERICK OLSON. All Saints' Cathedral, 10035 103 Street. Admission \$3. (Students will be admitted to the dress rehearsal on Wednesday, 8 December for \$1.)

11 DECEMBER, SATURDAY

Faculty Club

Upstairs. Gourmet Special. Baked Pink Grapefruit, Roast Goose, Viennese Salad. Mincemeat Flan. \$13 for two. Also regular

menu. Dinner served 6 to 9 p.m. Dancing afterwards.

Edmonton Symphony Orchestra

8:30 p.m. *And 12 December at 3 p.m.* DAVID ATHERTON, conductor. Program includes "Entry of the Queen of Sheba" by Handel, Serenade in A by Brahms, "Ramifications" by Ligetti, and Symphony Number 1 in C by Beethoven. Jubilee Auditorium.

12 DECEMBER, SUNDAY

National Film Theatre

7:30 p.m. *Citizen Kane* directed by ORSON WELLES, with ORSON WELLES, JOSEPH COTTON and EVERETT SLOANE. English dialogue. Edmonton Art Gallery. Members only. Memberships available at the door; \$2 on evening of joining, 75 cents every film attended thereafter.

EXHIBITIONS

SUB Art Gallery

Until 26 November. Hangings by WHYNONA YATES, and "Two Young Montreal Artists."

University Art Gallery and Museum

Until December 15. Works by SANDY HAESKER, Calgary painter and printmaker; WILLIAM HOGARTH, eighteenth century English artist; and FRITS VANEN, Dutch sculptor. Hours 10 a.m. to 4 p.m. Monday and Tuesday; 12 noon to 4 p.m. Wednesday and Friday; 12 noon to 8 p.m. Thursday.

Edmonton Art Gallery

Until 12 December. "Paul Kane 1810-1871." (Organized by the National Gallery.) *Until 30 November.* "A Tribute to Albrecht Durer 1471-1528." (Organized by the German Consulate.) *Until 5 December.* "Eskimo Sculpture." For exhibition and sale. *Until January 30.* "The Plains Indians," arts and artifacts.

PERSONAL NOTICES

Notices must be received by 9 a.m. the Friday prior to publication. Rate is seven cents per word for the first insertion and five cents per word for subsequent insertions ordered with the first. Minimum charge is \$1. To avoid billing, notices MUST BE PAID IN ADVANCE. For assistance or order blanks, telephone Mrs. Adrienne Lent, 432-4991.

Accommodation available

FOR RENT—Charming old home on farm two miles from Southgate Shopping Center. Comfortable for two or three people. Available December 20. 432-5367, 399-5349.
FOR RENT—Deluxe executive home, Glenora, ravine location, three bedrooms, garage, appliances; references. 488-4022.
FOR RENT—December 1, three room accommodation, kitchen (furnished), livingroom, bedroom, share bathroom. \$90/month including utilities (phone extra) if shared by two students. Walking distance

to University. 439-4563 after 6 p.m..

FOR SALE—Laurier Heights home and contents. Three bedrooms, L-shaped living-dining-room, recreation room. 488-9145.

FOR SALE—Windsor Park, lovely three-bedroom home, large living room and dining area; rumpus room and den in finished basement; brick and siding exterior. Professional landscaping, double garage. Call Dorothy Hamilton, 439-7371, 439-4516, H. R. Kellough Realty Ltd..

FOR RENT—Quiet country apartment, three large rooms (one with fireplace), kitchen, bathroom, separate entrance, 10 minutes from University. Available January 1. Phone 452-4758 or write P.K., 829 Centennial Building.

FOR RENT—Three-bedroom house fully furnished, Lendrum Place; available late December to end of August, 1972. 434-3752 or 432-4636.

FOR RENT—Close to University, large living room, dining room and one bedroom—furnished. 433-7424 evenings.

Accommodation Wanted

WANTED TO RENT—Two-bedroom house (preferably furnished), for two months from mid-December. University hours: 432-3242 (Vucetich).

NEEDED—Four-bedroom furnished house by Visiting Professor, to rent for second semester. 439-3543 or 432-5726. Willett.

Automobiles and accessories

FOR SALE—1966 Thunderbird, 48,000 miles, completely equipped, premium automobile. Grant—482-3866, evenings.

Goods and services

FOR SALE—Hungarian Vizsla puppies, champion blood lines. Call 699-9849 after 5 p.m..

FOR SALE—Tyrol ski boots size 5, \$15; figure skates size 3, \$5; Black Panther hockey skates size 8, \$15. 439-8361.

FOR SALE—Ping-pong table, girl's bicycle, assorted games, etc.. 488-9145.

FOR SALE—Photographic enlarger. Durst 600. 50mm Schneider lens. Excellent condition. \$160. M. Harvey, 433-0821.

FOR SALE—Saint Bernard puppies, born October 27. \$150-\$250 each. Phone 699-2098, 7 to 9 p.m., Monday through Friday.

FOR SALE—"16" Sunbeam electric snow thrower with 100' cord. \$125. Gary, 432-4901 work, 484-0409 home.

SUMMERHILL—Parents and volunteers interested in discussing a free school, please call Mrs. Pegi Scroggie, 435-7757.

FOR SALE—Purebred German Shepherd puppies. 599-4845 evenings and weekends.

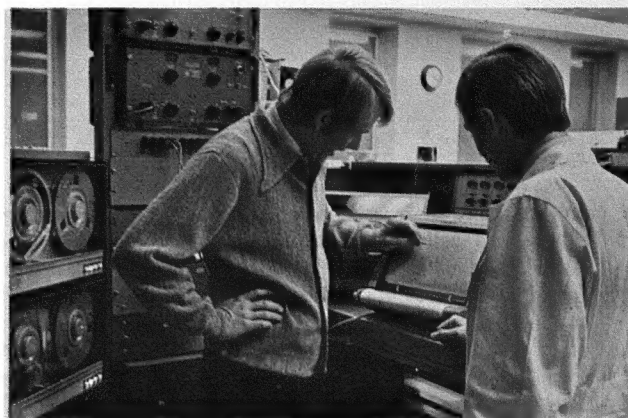
POSITIONS VACANT

NON-ACADEMIC STAFF

Applicants are sought for the following positions. The Personnel Office (Room 121, Administration Building) will provide further details to interested persons, who are asked not to approach the departments directly.

Clerk Steno I (\$288-\$368)—Library Science
Clerk Typist II (\$317-\$405)—Provincial Laboratory
Clerk Steno III (\$386-\$491)—Dentistry
Key Punch Operator (\$350-\$446)—Administrative Data Processing
Bacteriology Technologist I (\$491-\$627)—Medical Bacteriology
Bacteriology Technologist II (\$569-\$726)—Medical Bacteriology
Electron Microscope Technician (Open)—Anatomy

AT RIGHT: analog data monitoring on a multi-channel strip chart recorder during conversion of the analog data to a digital format. Ask about the "loan technician" program. Several departments are benefiting from it.



REPORT | TECHNICAL SERVICES

The Department of Technical Services provides a variety of services to all University departments. The Department consists of seven divisions, and the services of each are listed in this supplement. A glassblowing service is provided by the Department of Chemistry.

AUDIO VISUAL SERVICES

Supervisor J. DE WACHT,
Room 372 General Services Building.
Telephone 3923.

Equipment pools located in:

Room 372 General Services Building,
Room LB9 Henry Marshall Tory Building,
Room z207 Biological Sciences Building.

Services available:

1. Projectionist services.
2. Operation of public address and sound systems.
3. Supplying projection equipment to departments.
4. Setting up and operation of recording equipment at lectures, seminars, talks, etc.
5. Advice and assistance on purchase of equipment.

Equipment available for short-term loan

1. 35mm slide projectors.
2. 35mm slide projector, random access.
3. 16mm motion picture projectors (sound) including the following special projectors:
 - (a) 16mm projector (silent) variable speed; slowest frame rate is 13 per second,
 - (b) 16mm projector (photo data optical analyzer) which will project at the following frame speeds: 1, 2, 4, 6, 8, 12, 16 and 24 frames per second with no flicker,
 - (c) 16mm projector (magnetic sound).
4. 3¼ x 4¼ slide projectors.
5. Opaque projectors.
6. Filmstrip projectors.
7. Overhead projectors.
8. Tape recorders (several kinds, including battery-operated and cassette recorders).

9. Portable public address systems.
10. Projection screens.
11. Record players.
12. Slide-tape synchronizing systems.

ELECTRONICS

Supervisor J. G. A. BRUGMAN,
Assistant Supervisor P. G. FEKETE,
Room 248 Engineering Centre.
Telephone 4901.

Services available

1. Designing and building specialized electronic equipment.
2. Servicing equipment such as spectrophotometers, liquid scintillation systems, centrifuges, pH meters, teletypes, gas chromatographs, tape recorders, recording equipment including dynagraphs, etc. Factory trained technicians available for service work on "Tektronix" scopes, "Hewlett-Packard" data systems, "Cary" and "Gilford" spectrophotometers, all "Beckman" equipment, EAI Hybrid computers, and PDP8 and PDP9 computers.
3. Electronics technicians are available on either full time or part time basis for short or long periods of time.
4. Advice and assistance on technical problems.
5. Servicing all intercom installations and all sound systems on campus. There is no charge for this service.
6. A considerable amount of electronic equipment is available for loan; a catalogue listing the equipment can be obtained on request.
7. Advice and assistance on purchasing of equipment.
8. A preventive maintenance program is available to any department wishing regular servicing of equipment. Service contracts are available.
9. A comprehensive library of technical bulletins and information on equipment

is available for the use of all University departments.

10. Complete fabrication of printed circuit boards, single and double sided.

DATA ACQUISITION AND INTERFACING

Technical Officer M. DE LEEUW,
Room 371 General Services Building.
Telephone 5835.

Services available

1. Design and construction of systems for data acquisition.
2. Design and construction of interfaces for mini-computers.
3. Conversion of analog data to digital data for computer processing.
4. Assistance with purchasing of above type of equipment.
5. Rental of data acquisition systems.

GRAPHICS

Supervisor G. T. WORMSBECKER,
Assistant Supervisor R. W. MILLER,
Room 135 Printing Services Building.
Telephone 3461 or 4184.

Services available

1. Preparation of all types of drawings for publications, reports, theses, slides, TV and motion pictures.
2. Production of visual aids such as TV cards, overhead projector slides, flip charts, wall maps, etc.
3. Medical and biological illustrations.
4. Preparation of master drawings for printed circuits.
5. Design and fabrication of displays for conferences, symposia, etc.
6. Vartyping in many type styles, including Greek and mathematical.
7. Silkscreen and signpress printing of posters, stickers, and labels on a wide variety of materials.
8. Diazo copying (all types).
9. Electrostatic copying (enlarged and reduced) onto paper, acetate, etc.
10. Line negatives for printed circuitry,

- projectuals, or engineering reproduction.
11. Advice and assistance regarding visual instructional materials and techniques, graphics standards for publication, slides, etc.

MACHINE SHOP

Supervisor E. F. EICHENLAUB,
Assistant Supervisor G. L. EDWARDS,
Room 132 Engineering Centre.
Telephone 4901.

Services available

1. Design and construction of specialized apparatus and equipment.
2. Complete shop service: machining, fabricating, and welding.
3. Service and repair of mechanical apparatus and equipment.
4. Advice and assistance on proposed projects.
5. Advice and assistance on proposed equipment.
6. Modification of equipment and machines.

Equipment is available to do the following:

1. SAWING
 - (a) Band saw—36 inch throat—depth capacity to 12 inches—contouring to 36 inches diameter—band filing,
 - (b) Cut-off saw—circular capacity to 12 inches.
2. TURNING—largest lathe has a capacity of 7 feet between centres with a swing of 20 inches over bed and a 29¼-inch swing in gap.
3. DRILLING AND BORING—radial drill has a 5-foot arm and drilling capacity in steel of 3 inches.
4. MILLING—largest milling machine has a table travel of 60 inches and a ram travel (cross) of 27 inches.
5. WELDING
 - (a) Oxyacetylene
 - (b) Arc
 - (c) Tig, 500 amp maximum
 - (d) Mig
 - (e) Silver brazing
 - (f) Plasma needle arc
 - (g) Plasma arc cutting (stainless steel and aluminum).
6. FABRICATING
 - (a) Power shearing 10 ft. x ¼ in. capacity
 - (b) Press brake 12 ft. die surface, 110 ton capacity
 - (c) Hand brake, 4 ft.
 - (d) Punching and notching on "Ironworker"
 - (e) Bending on a "Diacro" number 8 power bender, ¾ in. x 4 in. flat and 1¼ in. mild steel bar capacity
 - (f) "Pioneer" nibbler, ½ in. capacity.
7. GRINDING AND LAPPING
 - (a) "Norton" tool and cutter grinder

- (b) Lapping machine, 5 in. diameter capacity.
8. GAUGING
 - (a) "Scherr-Tumico" model P1600 Optical Comparator with photo print facility
 - (b) Registered Double "A" standard surface plate and gauge blocks in temperature-controlled room.
9. POLISHING
 - (a) Mechanical buffing
 - (b) Electro-polishing
 - (c) Anodizing
 - (d) Bluing.
10. SHOT-BLASTING—Shot-blast machine has a chamber size of 48 in. x 30 in. x 38 in.

MICROSCOPE REPAIR

Supervisor R. J. CUNNINGHAM,
Room 260 Engineering Centre.
Telephone 4901.

Services available

1. Maintenance and repair of microscopes.
2. A preventive maintenance program is available to any department wishing regular servicing of microscopes.
3. Sharpening of microtome knife blades.
4. In the near future will provide a preventive maintenance service on balances.
5. Repair of electrical meters (movements only)—voltmeters, ammeters, etc.

OFFICE EQUIPMENT REPAIR

Supervisor R. R. REEDER,
Assistant Supervisor D. D. MILLAR,
Room 130 Engineering Centre.
Telephone 4901.

Services available

1. Maintenance and repair on all lines of—
 - (a) dictation equipment
 - (b) Mechanical adding machines and calculators
 - (c) electric and manual typewriters
 - (d) duplicating and photocopy machines
 - (e) small office accessories such as reading accelerators, staplers (standard and electric), numbering stamps, etc.
2. Maintenance and repair on some lines of electronic calculators including Programmo 101 and 102, Friden EC 130 and 132, Commodore A1-1000, 1121, 1161, 1152 and 512, Addo-X 9357 and Philips 251.
3. Loan machines available while your machine being repaired.
4. Equipment available for rent (no charge under 3 days).
5. Parts and accessories for all lines of dictating machines, adding machines and calculators.
Tapes and log pads available through

- either Central Stores or Office Equipment Repair.
6. Repair of IBM type elements (fonts).

PHOTOGRAPHIC SERVICES

Supervisor A. CHERNICK,
Room 130 Printing Services Building.
Telephone 4186 or 3812.

Services available

1. Original photography—prints and slides in black and white and in color.
2. Copy work—prints and slides in black and white and in color.
3. Production of superior quality black and white prints using an electronic scanning enlarger.
4. Portraits.
5. Photomicrography, microphotography, macrophotography.
6. Specialized scientific and medical photography.
7. Murals.
8. Microfilming.
9. Film processing and printing in black and white and in color.
10. Camera and accessory rentals.
11. Motion Pictures (phone 3812)
 - (a) Complete film production services: research, educational, documentary, dramatic; in color, black and white, silent or sound
 - (b) Film completion services; assistance in completing your own film to any extent you require
 - (c) Camera rentals; 16mm Bolexes with 17-85mm zooms, Super 8 Canon model 814's. (Reservations usually required)
 - (d) Specialized services available—photographic setups for research, time lapse, cinemicrographic, data recording, high speed camera operation, still pictures from films, sound and picture editing and synchronizing
 - (e) Film processing services
 - (f) Large file of motion picture technical and product information, and advice.

GLASSBLOWING

Supervisor C. SHOTT, (Department of Chemistry)
Room 160 Chemistry Building.
Telephone 3513

Services available

Scientific glassblowing to your specifications.

Comments, suggestions, or complaints on all services are welcomed.

W. H. JOPLING
Co-ordinator, Technical Services